

REMARKS

This is in full and timely response to the Office Action mailed March 18, 2003, submitted concurrently with a Petition for Extension of Time to within the third extended month. Reexamination and reconsideration in light of the above amendments and the following remarks is respectfully requested.

By the foregoing amendment, claims 6, 10-15, 20, 27 and 32 were cancelled without prejudice or disclaimer to their underlying subject matter, claims 1, 16-17, 23-24 and 29 were amended. Independent claims 1, 16, 24 and 29 were amended such that they all contain the element that the compressed layer of functional (or conductive) fine particles is formed at a temperature below a glass transition temperature of the support. Support for this amendment can be found variously throughout the specification, for example, at page 29, lines 21-24. Claims 1, 16, 17, 23, 24 and 29 were amended to recite that the support is selected from the group consisting of polyethylene terephthalate film, polyethylene film, polypropylene film, polycarbonate film, acrylic film, and norborene film. Support for this amendment can be found variously throughout the specification, for example, at page 24, line 23 to page 23, line 2. Claims 1 and 16 were amended to recite that the functional fine particles has a particle diameter of 1.0 μm or less. Support for this amendment can be found variously throughout the specification, for example, at page 32, lines 2-8. Claim 24 was amended to recite that the conductive fine particles has a particle diameter from not less than 5 nm to not more than 100 nm. Support for this amendment can be found variously throughout the specification, for example, at page 34, lines 11-16. Claims 6, 20, 27 and 32 were cancelled without prejudice or disclaimer to their underlying subject matter. No new matter was added. Claims 1-3, 16-18, 21-26, 28-30 and 33-34 are currently pending in this application, with claims 1, 16, 17, 23, 24 and 29 being independent.

Rejections under 35 U.S.C. §102

Claims 1-3, 6 and 16 are rejected under 35 U.S.C. §102(b) as being anticipated by EP Patent No. 0297678 to Parr et al. Applicant respectfully traverses this rejection. Applicant has cancelled claim 6 without prejudice or disclaimer, mooted this portion of the rejection.

As acknowledged by the examiner in paragraph 42, Parr et al. '678 does not disclose, teach or suggest compressing the film at a temperature below the glass transition temperature of

the support. As discussed above, this claim element has been added to the claims. The examiner further acknowledge in paragraph 43 that Parr et al. '678 utilizes particles that are outside the size range utilized by the invention. As discussed above, this claim element has been added to the claims.

A document can only anticipate a claim if the document discloses, explicitly or implicitly, each and every feature recited in the claim. Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Since Parr et al. '678 fails to disclose, either explicitly or implicitly, teach or suggest at least the above-noted features recited in independent claims 1 and 16, Parr et al. '678 cannot anticipate the claims. At least in view of the foregoing, claims 1 and 16 are allowable, and the rejection should be reconsidered and withdrawn.

Dependent claims 2-3 depending from claim 1 are also allowable for the reasons above. Moreover, these claims are further distinguished by the materials recited therein, particularly within the claimed combination. Withdrawal of the §102(b) rejection is therefore respectfully solicited.

Rejections under 35 U.S.C. §103

Claims 1-3, 6, 16-18, 20-30 and 32-34 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,411,792 to Yokinobu et al. Applicant respectfully traverses this rejection. Applicant has cancelled claims 6, 20, 27 and 32 without prejudice or disclaimer, mooted this portion of the rejection.

Claim 1 recites a functional film comprising a compressed layer of functional fine particles obtained by compressing a layer containing the functional fine particles that is formed by application onto a support with a compression force of at least 44 N/mm², at a temperature below a glass transition temperature of said support, said functional film being selected from the group consisting of a magnetic film, a ferromagnetic film, a dielectric film, a ferroelectric film, an electrochromic film, an electroluminescent film, an insulating film, a light-absorbing film, a light selecting absorbing film, a reflecting film, a reflection preventing film, a catalyst film and a photocatalyst film, said support being selected from the group consisting of polyethylene terephthalate film, polyethylene film, polypropylene film, polycarbonate film, acrylic film, and norbornene film, said functional fine particles having a particle diameter of 1.0 μm or less.

Claim 16 recites a functional film comprising a compressed coating layer of functional fine particles on a support with a compression force of at least 44 N/mm^2 , at a temperature below a glass transition temperature of said support, said functional film being selected from the group consisting of a magnetic film, a ferromagnetic film, a dielectric film, a ferroelectric film, an electrochromic film, an electroluminescent film, an insulating film, a light-absorbing film, a light selecting absorbing film, a reflecting film, a reflection preventing film, a catalyst film and a photocatalyst film, said support being selected from the group consisting of polyethylene terephthalate film, polyethylene film, polypropylene film, polycarbonate film, acrylic film, and norborene film, said functional fine particles having a particle diameter of $1.0 \mu\text{m}$ or less.

Claim 17 recites a conductive film comprising a compressed layer of conductive fine particles formed by application onto a support, wherein said compressed layer of conductive fine particles is obtained by compressing a layer containing the conductive fine particles and optionally a binder resin in an amount of less than 3.7 parts by volume with respect to 100 parts by volume of said conductive fine particles onto the support with a compression force of at least 44 N/mm^2 , at a temperature below a glass transition temperature of said support, , said support being selected from the group consisting of polyethylene terephthalate film, polyethylene film, polypropylene film, polycarbonate film, acrylic film, and norborene film, wherein said conductive fine particles have a particle diameter from not less than 5 nm to not more than 100 nm.

Claim 23 recites a conductive film comprising a compressed coating layer of conductive fine particles on a support, wherein said compressed coating layer of conductive fine particles is obtained by compressing a coating layer containing the conductive fine particles and optionally a binder resin in an amount of less than 3.7 parts by volume with respect to 100 parts by volume of said conductive fine particles onto the support with a compression force of at least 44 N/mm^2 , at a temperature below a glass transition temperature of said support, , said support being selected from the group consisting of polyethylene terephthalate film, polyethylene film, polypropylene film, polycarbonate film, acrylic film, and norborene film, wherein said conductive fine particles have a particle diameter from not less than 5 nm to not more than 100 nm.

Claim 24 recites a transparent conductive film comprising a compressed layer of conductive fine particles formed by application onto a support, wherein said compressed layer of conductive fine particles is obtained by compressing a layer containing the conductive fine

particles and no binder resin onto the support, at a temperature below a glass transition temperature of said support, and then being impregnated with a transparent substance after compression, said support being selected from the group consisting of polyethylene terephthalate film, polyethylene film, polypropylene film, polycarbonate film, acrylic film, and norborene film, said functional fine particles having a particle diameter from not less than 5 nm to not more than 100 nm.

Claim 29 recites a conductive film comprising a compressed layer of conductive fine particles obtained by compressing a layer containing the conductive fine particles that is formed by application onto a support with a compression force of at least 44N/mm^2 , at a temperature below a glass transition temperature of said support, said support being selected from the group consisting of polyethylene terephthalate film, polyethylene film, polypropylene film, polycarbonate film, acrylic film, and norborene film, wherein said conductive fine particles have a particle diameter from not less than 5nm to not more than 100nm.

Yokinobu et al '792, for example in the Fifteenth Embodiment, discloses the base board made of polyimide film and procedure of heat-treatment of the functional particles at $400\text{ }^{\circ}\text{C}$. Namely, Yukinobu et al. '792 uses polyimide film with high glass transition temperature of about $216\text{ }^{\circ}\text{C}$ so that the base board resists such a high temperature.

In contrast, the present invention discloses the support for forming layer thereon by compressing treatment, not by heat treatment at such a high temperatures as disclosed in Yukinobu et al. '792. Therefore, in the present invention, the supports as recited in the claims are used. Still further, for the convenience of the examiner, each support disclosed in the present invention respectively has a glass transition temperature of approximately:

69 $^{\circ}\text{C}$ (polyethylene terephthalate film)

-30 $^{\circ}\text{C}$ to -85 $^{\circ}\text{C}$ (polyethylene film)

r.t. to -10 $^{\circ}\text{C}$ (polypropylene film)

150 $^{\circ}\text{C}$ (polycarbonate film)

90 $^{\circ}\text{C}$ to 100 $^{\circ}\text{C}$ (acrylic film)

120 $^{\circ}\text{C}$ to 170 $^{\circ}\text{C}$ (norborene film)

Therefore, Yokinobu et al '792 with procedure of heat treatment at high temperature never disclose, teach or suggest the support as is claim in the present application, the Examiner

has failed to make a *prima facie* case of obviousness with respect to claims 1, 16, 17, 23, 24 and 29. Consequently, the present invention would not be obvious over Yukinobu et al. '192.

Accordingly, a *prima facie* case of obvious has not been and cannot be established. For at least the reasons above, claims 1, 16, 17, 23, 24 and 29 are therefore patentable, and withdrawal of the §103(a) rejection is therefore respectfully solicited.

Claims 2-3, being dependent upon claim 1, claims 18, 21 and 22 depending upon claim 17, claims 25, 26 and 28 depending upon claim 24, and claims 30, 33 and 34, being dependent upon claim 29, are also allowable for the reasons above. Moreover, these claims are further distinguished by the materials recited therein, particularly within the claimed combination. Withdrawal of the §103(a) rejection is therefore respectfully solicited.

Conclusion

For the foregoing reasons, claims 1-3, 16-18, 21-26, 28-30 and 33-34 are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of these amendments and remarks is courteously solicited. If the examiner has any comments or suggestions that would place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number below.

Dated: September 16, 2003

Respectfully submitted,

By 

David T. Nikaido

Registration No.: 22,663

Robert S. Green

Registration No.: 41,800

RADER, FISHMAN & GRAUER PLLC

1233 20th Street, N.W.

Suite 501

Washington, DC 20036

(202) 955-3750

Attorneys for Applicant

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 180013 for any such fees; and applicant(s) hereby petition for any needed extension of time.